DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-024383 Address: 333 Burma Road **Date Inspected:** 09-Apr-2011

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes Mr. Geng Wei. No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:**

Bridge No: 34-0006 **Component:** Orthotropic Box Girder (OBG)

Summary of Items Observed:

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Chang xing Island in Shanghai, China. QA observed and/or found the following:

BAY 14

This QA Inspector performed randomly Visual Inspection and Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified as OBG Segment 14 East. The weld designations reviewed are as follows.

SEG3019AQ-025

NDT Notification No-08776

This QA Inspector observed the following work in progress:

OBG 14EAST

SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 066418 Perform Shielded Metal Arc Welding (SMAW) on OBG Segment 14East. Joint identified as SEG30191-082. ZPMC QC Identified as Zhu Yuan Yuan. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2213-B-U2-FCM-1.

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This QA Inspector observed ZPMC qualified welding personnel identified as 054013 Perform Shielded Metal Arc Welding (SMAW) on OBG Segment 14East. Joint identified as SEG3019K-007. ZPMC QC Identified as Zhu Yuan Yuan. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2213-B-U2-FCM-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 058087, 067571, 066422 Perform Shielded Metal Arc Welding (SMAW) on OBG Segment 14East. Joint identified as SEG3019*-004. ZPMC QC Identified as Zhu Yuan Yuan. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2211-B-U2-FCM-1. For more information see attached picture number 1.

This QA Inspector observed ZPMC qualified welding personnel identified as 0501946 Perform Shielded Metal Arc Welding (SMAW) on OBG Segment 14East. Joint identified as DP3160-001-039. ZPMC QC Identified as Zhu Yuan Yuan. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2213-Tc-U4b-FCM-1.

FCAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 066163 Perform Flux Core Arc Welding (FCAW) on OBG Segment 14East. Joint identified as SEG3019Q-1-160. ZPMC QC Identified as Zhu Yuan Yuan. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2232-ESAB.

This QA Inspector observed ZPMC qualified welding personnel identified as 066733 Perform Flux Core Arc Welding (FCAW) on OBG Segment 14East. Joint identified as SEG3019T-053, 058. ZPMC QC Identified as Zhu Yuan Yuan. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2232-ESAB.

This QA Inspector observed ZPMC qualified welding personnel identified as 067079 Perform Flux Core Arc Welding (FCAW) on OBG Segment 14East. Joint identified as SEG3019W-002. ZPMC QC Identified as Zhu Yuan Yuan. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2232-ESAB.

This QA Inspector observed ZPMC qualified welding personnel identified as 067877 Perform Flux Core Arc Welding (FCAW) on OBG Segment 14East. Joint identified as SEG3019AV-046. ZPMC QC Identified as Zhu Yuan Yuan. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2231-ESAB.

Repair welding, SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 037723 Perform Shielded Metal Arc Welding (SMAW) on OBG Segment 14East. Joint identified as SEG3019BB-045. ZPMC QC Identified as Zhu Yuan Yuan with Critical welding repair report CWR-B-CWR2917. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-SMAW-4G (4F)-FCM-Repair-1. For more information see attached picture number 2.

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Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.





Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang: 15000422372, who represents the Office of Structural Materials for your project.

| Inspected By: | Gaikwad,Shailesh | Quality Assurance Inspector |
|---------------|------------------|-----------------------------|
| Reviewed By: | Patterson,Rodney | QA Reviewer |